



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,521	12/03/2003	Nobuyuki Shirie	8012-1218	3762
466	7590	05/24/2005	EXAMINER	
YOUNG & THOMPSON 745 SOUTH 23RD STREET 2ND FLOOR ARLINGTON, VA 22202			NGUYEN, THONG Q	
			ART UNIT	PAPER NUMBER
			2872	

DATE MAILED: 05/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/725,521

Applicant(s)

SHIRIE, NOBUYUKI

Examiner

Thong Q. Nguyen

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 21-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 21-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The present Office action is made in response to the amendment filed on 3/14/2005. It is noted that in the mentioned amendment, applicant has amended claims 1-2, 4-6, 8 and 10-12; canceled claims 14-20 and added a new set of claims, i.e., claims 21-25, into the application. The pending claims 1-13 and 21-25 are examined in this Office action.

Specification

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

The specification has not provided support for the structure of the flare stopper as now claimed in each of claims 1, 6 and 25. Applicant is respectfully invited to review the specification in pages 2 and 4-6 which discloses that the flare is made from a phosphor bronze plate or a Mylar film by sheet metal stamping. The inner periphery 31a of the flare stopper has the form of the side plate of a circular truncated cone. While the drawings show that the flare stopper has a planar section and a curved section; however, the drawings and the specification have never disclosed/shown that there is a so-called "meeting" between the so-called "innermost" portion of the first section and the so-called "outermost" portion of the second section as claimed.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 21-22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

a) Claim 21 is rejected under 35 USC 112, first paragraph because the disclosure, as originally filed, does not provide support for the feature thereof "the second section...lens elements" as recited in the newly-added claim 21, lines 1-3. Applicant should note that the specification has never disclosed that the flare made by a sheet material is not in contact with any of the plural lens elements. It is noted that the contact with the flare to the lens element is indeed shown in figures 6 and 7. In particular, in figure 6, the planar section of the flare is in contact with the lens element (23) and in figure 7, the curved section of the flare is in contact with the lens element (22).

b) Claim 22 rejected under 35 USC 112, first paragraph because the disclosure, as originally filed, does not provide support for the feature thereof "the flare stopper makes contact with only the spacer" as recited in the newly-added claim 21, lines 1-2. Applicant should note that the specification has never disclosed

that the flare made by a sheet material contacts with only the spacer. It is noted that the contact of the flare with the lens element and the spacer is indeed shown in figures 6 and 7. In particular, in figure 6, the planar section of the flare is in contact with both the lens element (23) and the spacer and in figure 7, the planar section is in contact with the spacer while the curved section of the flare is in contact with the lens element (22).

Claim Rejections - 35 USC § 102

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
6. Claims 1 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Kohmoto (U.S. Patent No. 5,420,656, of record).

Kohmoto discloses a camera having a light intercepting element. In the embodiment described in columns 2-3 and shown in fig. 1, the camera comprises a lens barrel (11) for supporting/holding a taking lens system (L1, L2) and a light intercepting element (25) installed inside the lens barrel (11) for the purpose of preventing/intercepting harmful light to the image quality. Regarding to the structure of the light intercepting element (25), it is noted that in column 4 and shown in fig. 3, the light intercepting element (25) comprises a thin sheet of elastic material and defines a circular opening. The light intercepting member comprises a top planar section bonding to a ring shaped member (26) and a curved section having a shape of a side face of a circular truncated cone inclined to the optical axis of the taking lens system wherein the innermost portion of the

second section defines the circular inner periphery for allowing light passing therethrough. It is noted that the outermost portion of the curved section meets the innermost portion of the planar section.

Claim Rejections - 35 USC § 103

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 1, 6, and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Azami et al (U.S. Patent No. 5,568,322) in view of Kohmoto (U.S. Patent No. 5,420,656, of record).

Azami et al disclose a lens system having a lens barrel for supporting a plurality of lens elements and a light-intercepting element. The system as described in columns 1-3 and shown in figure 2 comprises a lens barrel (11) supporting lens elements (L1-L3) and a light intercepting element (13) which is disposed between the lens element (L2) and (L3). The light-intercepting element as shown is in contact with the lens surface of the lens element (L2) and oriented in a direction which is inclined to the optical axis of the lens system. The inner periphery of the light-intercepting element defines a circular configuration for allowing light passing therethrough. See column 1, last three lines through column 2, first three lines. The only feature missing from the light-intercepting element provided by Azami et al is that they do not clearly state that the inner periphery has a side surface of a circular truncated cone as claimed. However, the use of a light-intercepting element wherein the inner periphery of the light-intercepting element

is made as a side surface having a truncated cone is known to one skilled in the art as can be seen in the system provided by Kohmoto.

In particular, Kohmoto discloses a photographic optical device having a lens barrel supporting a plurality of lens elements and a light intercepting element for preventing the ghost or flare. In the embodiment described in columns 2-3 and shown in fig. 1, the camera comprises a lens barrel (11) for supporting/holding a taking lens system (L1, L2) and a light intercepting element (25) installed inside the lens barrel (11) for the purpose of preventing/intercepting harmful light to the image quality. Regarding to the structure of the light intercepting element (25), it is noted that in column 4 and shown in fig. 3, the light intercepting element (25) comprises a thin sheet of elastic material and defines a circular opening. The light intercepting member comprises a top planar section bonding to a ring shaped member (26) and a curved section having a shape of a side face of a circular truncated cone inclined to the optical axis of the taking lens system wherein the innermost portion of the second section defines the circular inner periphery for allowing light passing therethrough. It is noted that the outermost portion of the curved section meets the innermost portion of the planar section. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the lens barrel supporting a plurality of lens elements and a light intercepting element as provided by Azami et al by using a light intercepting element having its inner periphery of a truncated cone as

suggested by Kohmoto for the purpose of increasing the ability of preventing light harmful to the formation of the image quality.

9. Claims 2-5, 8-12, 21 and 25, as best as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Azami et al in view of Kohmoto as applied to claims 1 and 6 above, and further in view of the prior art admitted by the applicant as stated in the present specification in page 1.

The system with the light intercepting mask as provided by Azami et al and Kohmoto does not explicitly state that the mask is made by phosphor bronze plate or a Mylar film by sheet metal stamping with thickness is approximately 0.03 to 0.05 mm as claimed. However, the use of a light intercepting element made by a Mylar film having such a thickness is known to one skilled in the art as admitted by the applicant in the present specification in page 1. Regarding to the use of phosphor bronze material for making the light intercepting element as recited in present claims, such a recitation is merely that of a preferred embodiment and no criticality has been disclosed. The support for that conclusion is found in the present claims 4-5 and 10-11 in which claims, the applicant has claimed that the material of the light intercepting element is Mylar. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the light intercepting mask provided by Azami et al and Kohmoto by using Mylar material as suggested by the prior art or other suitable material available in the art/market including the bronze material for

Art Unit: 2872

making the light intercepting mask to meet a particular design/application. See *In re Leshin*, 125 USPQ 416.

Regarding to the feature that the flare stopper and one of the lens elements are arranged so that one of the lens elements presses and deforms the flare stopper so that the inner periphery of the flare stopper is inclined with respect to the optical axis of the taking lens unit as claimed in present claims 12 and 25, such a feature is readable in the camera provided by Azami et al. In particular, the lens elements (L1-L3) and the light intercepting element (13) are arranged within the supports (11 and 12) in which the support (12) presses the lens element (L1) which is in turn presses the lens element (L2) at its abutting surface (14). The lens element (L2) presses the light intercepting element (13) at its abutting surface (15) and then the lens element (L3) in association with the flange (11b) of the support (11). It is also noted that the material of the light intercepting element (13) is a plastic material. See column 3. As a result of such a structure, the lens element (L2) presses the light intercepting element (13) and will make the light intercepting element deform due to its plastic material so that the inner periphery portion of the light intercepting element is inclined with the optical axis of the lens system.

10. Claims 1, 6-7, 13 and 22, as best as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kudo et al (U.S. Patent No. 4,886,342, of record) in view of Kohmoto (U.S. Patent No. 5,420,656, of record).

Kudo et al disclose a lens system having a lens barrel for supporting a plurality of lens elements and a light-intercepting element. The system as described in columns 2-4 and shown in figure 2 comprises a lens barrel system supporting lens elements (1-3) and a light intercepting element (7) which is disposed between the lens element (2) and (3). The light-intercepting element as shown is in contact with a spacer (6) which spacer is disposed between the two lens elements (2 and 3) and the light-intercepting element (7) is disposed between the lens element (2) and the spacer (6). The only feature missing from the light-intercepting element provided by Kudo et al is that they do not clearly state that the inner periphery has a side surface of a circular truncated cone as claimed. However, the use of a light-intercepting element wherein the inner periphery of the light-intercepting element is made as a side surface having a truncated cone is known to one skilled in the art as can be seen in the system provided by Kohmoto.

In particular, Kohmoto discloses a photographic lens unit having a lens barrel supporting a plurality of lens elements and a light intercepting mask for preventing the ghost or flare. In the embodiment described in columns 2-3 and shown in fig. 1, the camera comprises a lens barrel (11) for supporting/holding a taking lens system (L1, L2) and a light intercepting element (25) installed inside the lens barrel (11) for the purpose of preventing/intercepting harmful light to the image quality. Regarding to the structure of the light intercepting element (25), it is noted that in column 4 and shown in fig. 3, the light intercepting element (25)

comprises a thin sheet of elastic material and defines a circular opening. The light intercepting member comprises a top planar section bonding to a ring shaped member (26) and a curved section having a shape of a side face of a circular truncated cone inclined to the optical axis of the taking lens system wherein the innermost portion of the second section defines the circular inner periphery for allowing light passing therethrough. It is noted that the outermost portion of the curved section meets the innermost portion of the planar section. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the lens barrel supporting a plurality of lens elements and a light intercepting element as provided by Kudo et al by using a light intercepting element having its inner periphery of a truncated cone as suggested by Kohmoto for the purpose of increasing the ability of preventing light harmful to the formation of the image quality.

11. Claims 2-5, 8-11, and 21-24, as best as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kudo et al in view of Kohmoto as applied to claims 1 and 6 above; and further in view of the prior art admitted by the applicant as stated in the present specification in page 1.

The system with the light intercepting mask as provided by Kudo et al and Kohmoto does not explicitly state that the mask is made by phosphor bronze plate or a Mylar film by sheet metal stamping with thickness is approximately 0.03 to 0.05 mm as claimed. However, the use of a light intercepting element made by a Mylar film having such a thickness is known to one skilled in the art as

admitted by the applicant in the present specification in page 1. Regarding to the use of phosphor bronze material for making the light intercepting element as recited in present claims, such a recitation is merely that of a preferred embodiment and no criticality has been disclosed. The support for that conclusion is found in the present claims 4-5 and 10-11 in which claims, the applicant has claimed that the material of the light intercepting element is Mylar. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the light intercepting mask provided by Kudo et al and Kohmoto by using Mylar material as suggested by the prior art or other suitable material available in the art/market including the bronze material for making the light intercepting mask to meet a particular design/application. See *In re Leshin*, 125 USPQ 416.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

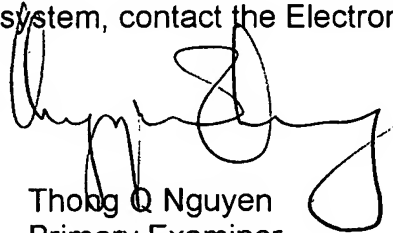
Art Unit: 2872

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q Nguyen whose telephone number is (571) 272-2316. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thong Q Nguyen
Primary Examiner
Art Unit 2872
